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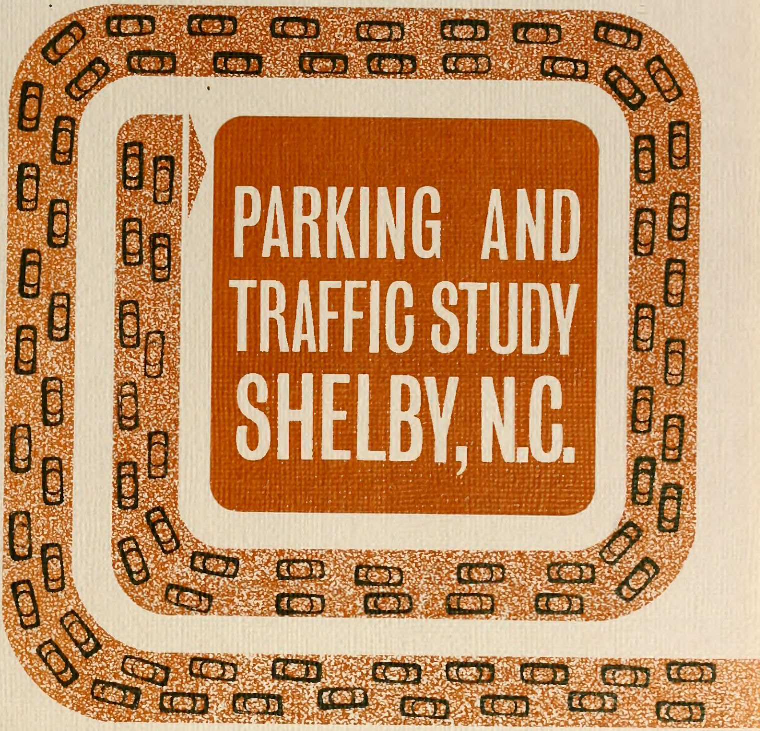

PARKING AND TRAFFIC STUDY
SHELBY, N.C.

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PARKING AND TRAFFIC STUDY
SHELBY, N.C.

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SHELBY MERCHANT'S SURVEY

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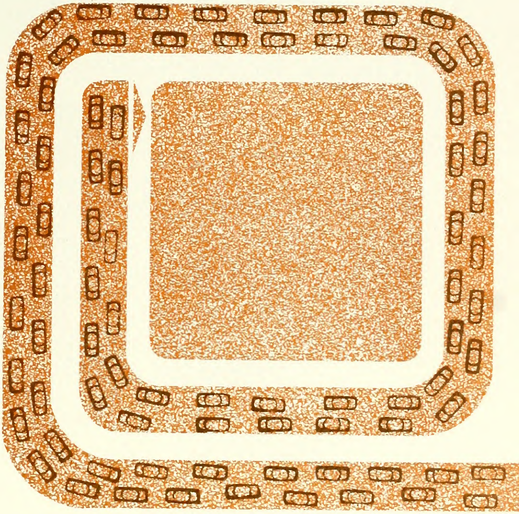
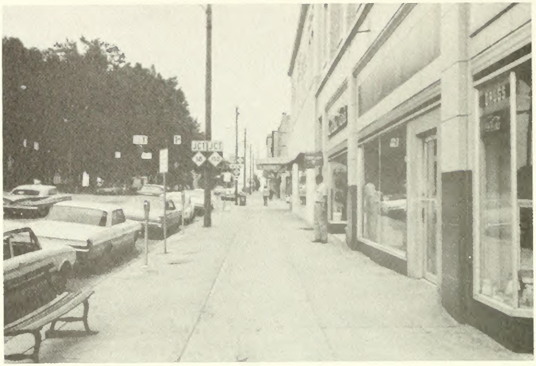
INTRODUCTION

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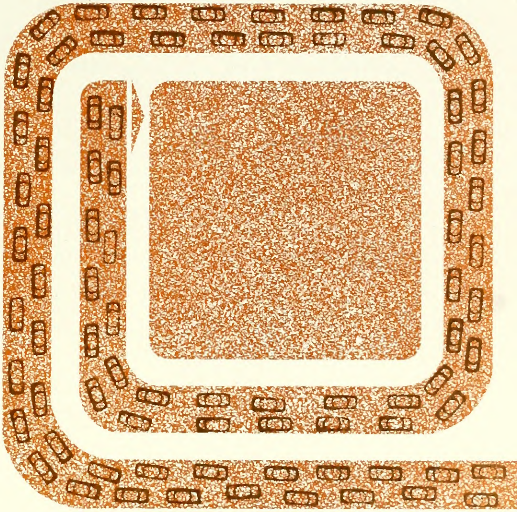
I. INTRODUCTION

Two basic requirements of the automobile must be considered in any program to help revitalize Downtown Shelby. Autos need streets on which to move and spaces in which to be stored or parked. In Shelby and in most cities, both of these fundamental requirements are being only partially met by fitting the function of each into the existing grid street pattern. In trying to serve both functions the downtown street system serves neither with efficiency. To meet the needs of today, the downtown area needs a street system which is designed to move vehicles without the interference of pedestrians, conflicting through city traffic, or adverse turning movements. In addition to this, automobile storage should be provided in off-street lots, conveniently located with respect to the main shopping stores, and the major traffic streets. This report is a study of the parking and traffic circulation system presently being used within the Shelby Central Business District. It is being prepared concurrently with a preliminary design plan for the business district. The major emphasis in this report will be centered on existing traffic and parking conditions, their deficiencies and possible solutions. The central business district preliminary design plan, using information from this study, locates future parking facilities and indicates future major thoroughfares that are consistent with the overall central business district objectives.

EXISTING CONDITIONS

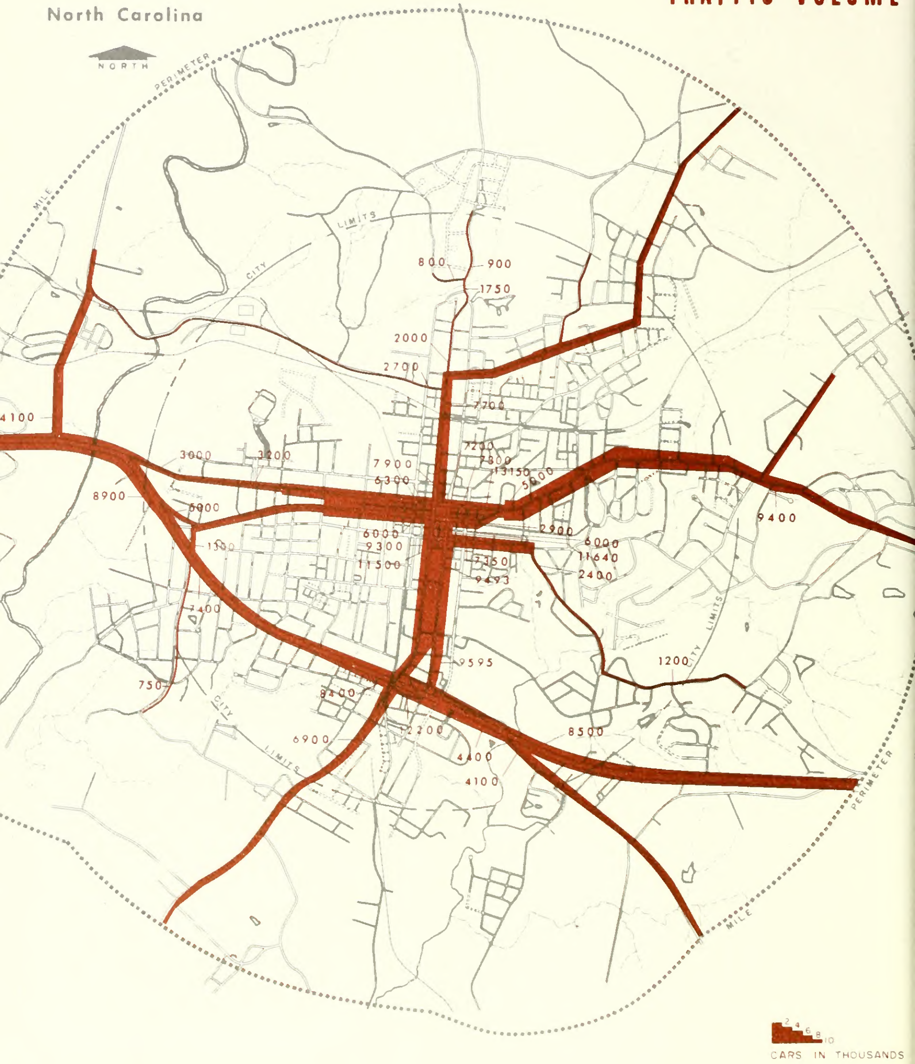


SHELBY

North Carolina

AVERAGE DAILY

TRAFFIC VOLUME



II. EXISTING CONDITIONS

TRAFFIC CIRCULATION

The two main considerations which need to be investigated in regard to traffic in the Shelby Central Business District are accessibility and circulation. People from all areas of the city and county should be able to drive to the central business district in safety without undue traffic congestion. On arriving, they should be able to drive to their destination within the central business district in a reasonable length of time without a great deal of interference from through traffic not having any business in the central business district. At their destination, they should be able to find ample parking available relatively close by.

The central business district of Shelby is in the approximate center of Shelby's urban development and is accessible from any section of the urban area. Access from the north is by North Lafayette Street, from the south by Lafayette Street and Dekalb Street, from the east by U.S. 74-A,Marion Street and Graham Street, and from the west by Marion, Warren, and Graham Streets. U.S. 74 bypass to the south of the CBD provides major east-west circulation through the city without interfering with CBD shopping oriented traffic. Besides being able to get to the central business district, it is necessary that drivers be able to circulate through the area in a systematic manner without undue interference. Downtown Shelby was developed with a grid system of streets, almost all with wide pavements and rights-of-way. Most of the streets have 100' rights-of way with 60' pavement widths and 20' wide sidewalks. These 60' streets provide for four moving lanes 11' wide and two parking lanes 8' wide. The two exceptions to the wide streets are Morgan Street and Sumter Street. Morgan Street, adjacent to the railroad, is only 22' wide and Sumter Street is 36' wide.

The heaviest traveled streets within the CBD in 1966 were Dekalb Street (13,150 vehicles per day[1]), Lafayette Street (11,500 vehicles per day), Graham Street (7,350 vehicles per day), Marion Street (7,300 vehicles per day), Warren Street (6,000 vehicles per day) and Washington Street (5,000 vehicles per day).

---

[1] Interpolated from July 1967 figures.

PRIVATE PARKING

Sterchi's
Insurance

PARKING FACILITIES

In order to obtain data for analysis of the existing parking situation, two different field surveys were conducted in Downtown Shelby. The first was a basic inventory survey and recorded the location and number of on-street and off-street parking spaces. The second survey was conducted in two parts with the objectives of obtaining data on the parking characteristics and the effectiveness of the present parking program.

Location and Number of On-Street Parking Spaces

The field survey of on-street parking conducted in July 1966 disclosed 549 metered on-street parking spaces. The survey did not cover the outer fringe of the CBD where most of the nonmetered spaces are found. Almost all spaces in the area several blocks in all directions from the courthouse are metered and were included in the survey.

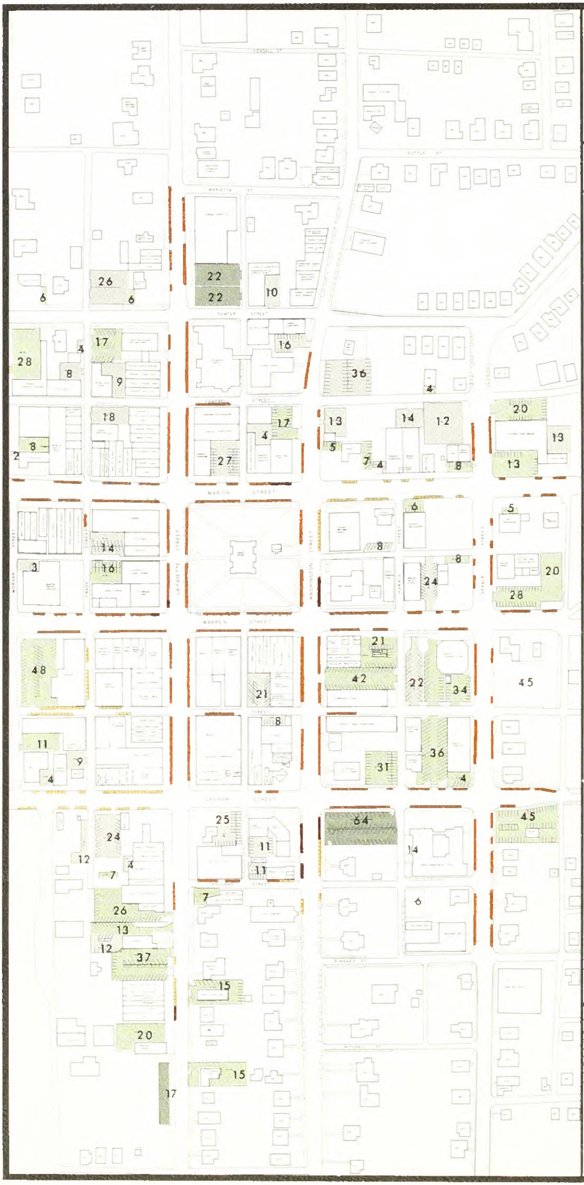
Lafayette Street (from Graham Street to Campbell Street) provides 76 metered spaces in the most desirous area for most shoppers. All of these spaces have one hour meters with one exception of 12 minute meters beside the First National Bank.

Washington Street (from Graham Street to Marion Street) provides 49 metered spaces. Six of these metered spaces are for two hours, four for 12 minutes, and 39 are one hour. Washington Street, although not the destination of a majority of shoppers has become a secondary shopping street and a governmental services street with the courthouse, city hall, and the present post office fronting on it.

Graham Street (from Morgan Street to Washington Street) provides thirty metered spaces, of which three are one hour and the remaining 27 are two hour metered spaces. Graham Street is not used as a primary shopping street but rather as one of the major east-west thoroughfares through the CBD.

Warren Street (from Morgan Street to Washington Street) provides 51 metered spaces, all of which are for one hour except one for 12 minutes beside the First National Bank. This street like Lafayette Street is in the most desirous area of most shoppers.

Marion Street (from Morgan Street to Washington Street) provides 52 metered spaces, three of which are 12 minutes and the other 49 are for one hour. This street is not one of the high percentage shopping store streets.



SHELBY, N.C.

NUMBER & LOCATION OF PARKING

LEGEND

ON STREET

🟥 12 Minutes

🟧 1 Hour

🟨 2 Hours

OFF STREET

▨ Public

☐ Private

🟩 Public For Specific Use

CENTRAL BUSINESS DISTRICT

PREPARED BY THE DIVISION OF COMMUNITY PLANNING, NORTH CAROLINA DEPT OF CONSERVATION AND DEVELOPMENT

Number and Location of Off-Street Parking Spaces

The field survey of off-street facilities conducted in July disclosed a total of 1,177 spaces. These spaces were classified under one of three divisions:

1. Public - that type of facility maintained and operated for use by the general public either paid or free parking. In many cases provided by the city governmental unit but it may also be provided by private enterprise.

2. Public for specific use - that type facility where parking is permitted only while seeking the goods or services of the establishment which provided the facility.

3. Private - that type of facility where parking space is for rental by employees or for company cars and trucks only.

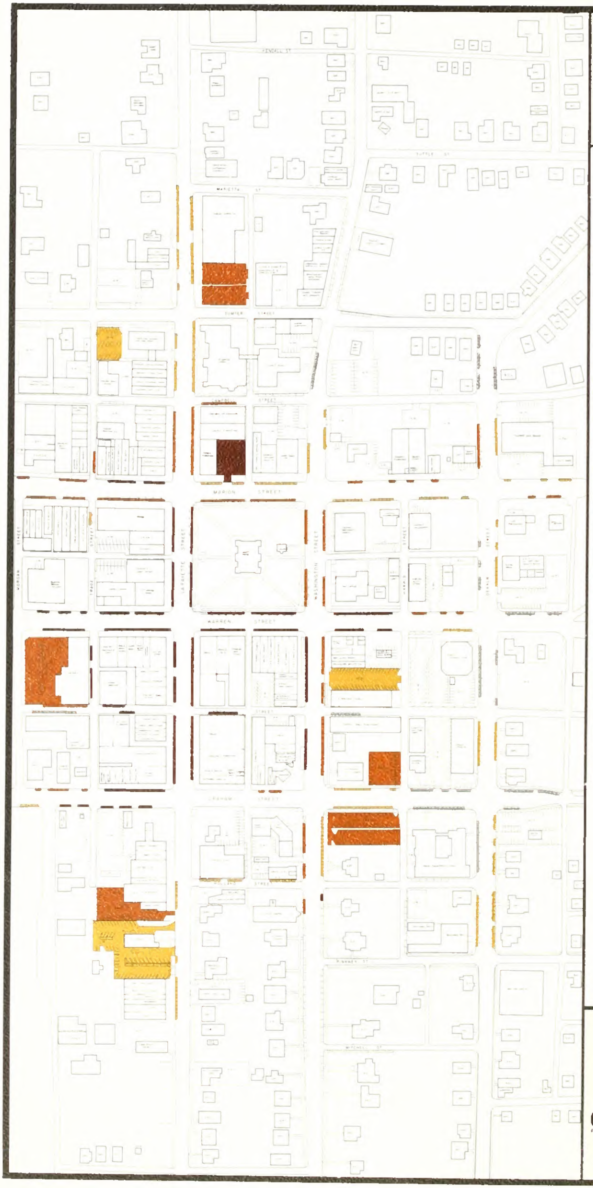
There are 125 public off-street spaces provided within the CBD area of Shelby. Sixty-four of these are metered for 10 hour use. These 64 spaces are located several blocks from the main shopping area, making them (along with the fact they are 10 hour meters) more useful to employees than to the general public.

In the public for specific use division there are 634 spaces provided. Some of these are located in or near the main shopping area but most are several blocks away.

Private parking lots account for 418 spaces. Almost all of these are near enough to the main shopping area to be effective for employee parking. However the recent merchants opinion survey indicated about 507 employees drive regularly to work thus leaving a shortage of 89 spaces for employees. These employees are then parking in spaces (either on or off-street) designed for the customer, which further adds to the parking problem as the employees park all day and are thus depriving the stores of potential customers. It is hoped that some of these employees are parking in lots or on the streets in the fringe area of the central business district. This is the area that should be used for employees parking as the general public or customers will not park that far away from the shopping area.

Parking Characteristics

Basic parking characteristics were studies in a survey on a Thursday the last week in August 1966. The



SHELBY, N.C.

PARKING-PERCENT USAGE

LEGEND

🟫	85 to 100 %
🟧	60 to 85 %
🟨	35 to 60 %
⬜	0 to 35 %

CENTRAL BUSINESS DISTRICT

PREPARED BY THE DIVISION OF COMMUNITY PLANNING, NORTH CAROLINA DEPT. OF CONSERVATION AND DEVELOPMENT survey was conducted in Shelby by paid personnel going around a prepared specific route every one-half hour. During the survey day (9 a.m. - 6 p.m.) the license numbers of all the vehicles parked in the spaces were recorded and the data was tabulated by the Division of Community Planning. August is probably average for a shopping month, and it is a good indicator as to usage of the facilities at most normal times. Thursdays are usually good average shopping days and do not indicate the heavier demand you would find on Fridays or Saturdays. The survey was divided into two parts - one concerned with on-street parking and the other concerned with off-street facilities.

The parking characteristics presented primarily point out these areas where motorists do park and those areas where they would like to park. The information collected is divided into three basic sections:

1. Percent usage of facilities - Generally indicates those areas where the demand is highest.

2. Average Duration - Indicates the average length of time parkers spend at facilities.

3. Average Turnover - Indicates the average number of cars that use a facility during a day.

On-Street Parking - Percent Usage

The percent usage information is perhaps the most important data collected in the field survey. It is the primary indicator of the major areas of demand, therefore, it indicates those areas where new facilities should possibly be provided. It is also an indicator of those facilities that are not used enough to support their continued existence.

The results of the survey show that Lafayette Street (between Graham Street and Marion Street) is used to capacity, almost 85% or more of the time. (A space usage of 85% is considered very high.)* Lafayette Street as a whole had usage at the one hour meters of 63.6%.

The results for Warren Street (between Morgan Street and Washington Street) are even higher. Over 90% usage was found for this part of Warren Street, and 79.2% usage for the street as a whole. If the survey had been conducted on a Saturday, a percentage in the 90's would probably have occurred for the length of both streets.

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*Parking, Eno Foundation for Highway Traffic Control, page 44.

This high usage on both Lafayette Street and Warren Street is indicative of several things. Primarily, it indicates the tremendous parking demand generated by the stores on those streets, but it also indicates the great volumes of traffic that use the streets. In order to have the high usage that is shown for the parking spaces on these two streets, a space must be filled almost as soon as it is vacated or the street must have a large number of long term meter feeders. The map on page 20 showing the locations of the "meter feeders" on the Thursday surveyed indicates that there were only fourteen on Lafayette Street as a whole and only twelve on Warren Street as a whole. While this is a high amount of long term parkers it is not as significant to the whole picture as the fact that volume and demand are great on these two streets.

Other streets showing heavy parking on the Thursday surveyed were Marion and Washington. Marion had 63.4% at the one hour meters. Trade Street with eleven meters had 65.9% usage.

The streets with the lightest parking were Graham (from Washington Street thru Dekalb Street) with 13.4% usage and Dekalb Street with 13.1%. These figures, however, were bolstered some by the fact that there were a few cars and "meter feeders" that remained at the same space all day or most of the day and thereby increased the total percent usage of all the spaces on the street.

The primary reason for the light parking on these streets is the walking distance to the core business district. Another probable reason for the light parking along these streets is the cost of the meter and, more directly, the chance of getting a parking ticket. Dekalb Street has 68 one hour meters and only ten two hour meters. All the meters on Graham Street (from Washington Street thru Dekalb) 36 of them, are one hour meters. If some of these one hour meters were increased to two or more hours some of the longer term parkers such as employees might be induced to park there, and thus help relieve the core business district to some extent.

The survey showed that the peak accumulation of parked cars in on-street spaces, for the business district as a whole, occurred at about 4:30 P.M. At that time there were 341 vehicles parked at the meters, or 62.1% of the 549 meters were in use. A secondary peak occurred earlier in the day at around 10:00 A.M. At that time 315 vehicles were parked at meters, or 57.4% of the 549 meters were in use.

On-Street Parking Turnover

The parking turnover data indicates the average number of vehicles that parked in a metered space during the survey period. There were 2,063 vehicles parked at 451 one hour meters, giving an average turnover of 4.6 vehicles per space. The 98 two hour spaces had 370 vehicles parked, giving an average of 3.8 vehicles per space. The figure for one hour meters is only slightly less than the average turnover figure of 5.7 for cities of less than 25,000 population.*

A close look at the map on page 14 of the core business district reveals an even higher rate of turnover than any of the above figures. On Warren Street, which has 75 one hour meters, a turnover of 6.2 vehicles per space is found. And on Lafayette Street with 120 one hour meters, a turnover of 5.9 vehicles per space was indicated. These figures are for the entire length of both streets and a look at the core area (several blocks in any direction from the intersection of Warren Street and Lafayette Street) shows that the parker remained for almost the whole allotted time on the meter. The smallest turnover was found at all meters on Dekalb Street, with 1.1 vehicles per space turnover for one hour meters and .6 vehicles per space turnover for two hour meters.

On-Street Parking Duration

The parking duration data indicates the average length of stay at a space. The duration data is closely related to the turnover data in that the greater number of cars using a facility would generally result in a shorter duration period.

In Shelby on the Thursday surveyed, the parkers averaged a stay of 56.1 minutes at the one hour meters and an average stay of 81.6 minutes at the two hour meters. This figure is increased by one metered space having been used all day by one vehicle. If this one meter is omitted from the tabulation, a more realistic average of 46.8 minutes at the two hour meters is noted.

This two hour figure is lower partly because most two hour meters are located several blocks from the core business district and people do not park there if they can get closer in. The figures for the one hour meters compare well with the average length of time

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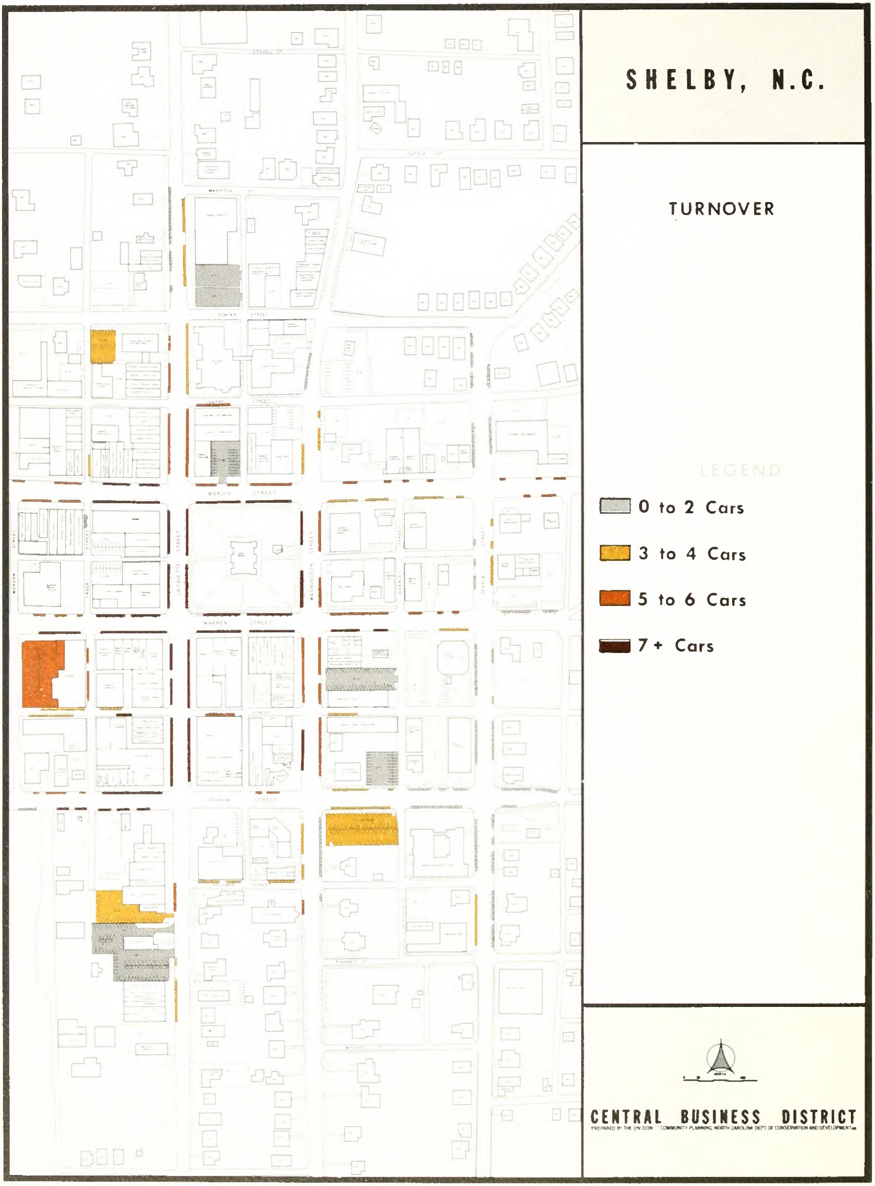
*Parking, Eno Foundation for Highway Traffic Control, page 54.



SHELBY, N.C.

TURNOVER

LEGEND

- ▨ 0 to 2 Cars
- 🟨 3 to 4 Cars
- 🟧 5 to 6 Cars
- 🟫 7 + Cars

CENTRAL BUSINESS DISTRICT

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parked for cities of under 25,000 population, which is 54 minutes. However, a higher rate of turnover would be more desirable as it would put more people into the area they want to go. Table A in the appendix gives the figures for individual streets.

Off-Street Parking Characteristics

The second part of the survey conducted on the last Thursday in August 1966 covered selected off-street parking lots in the CBD. Lots surveyed were chosen according to uses and are presented according to the use categories found on page 14.

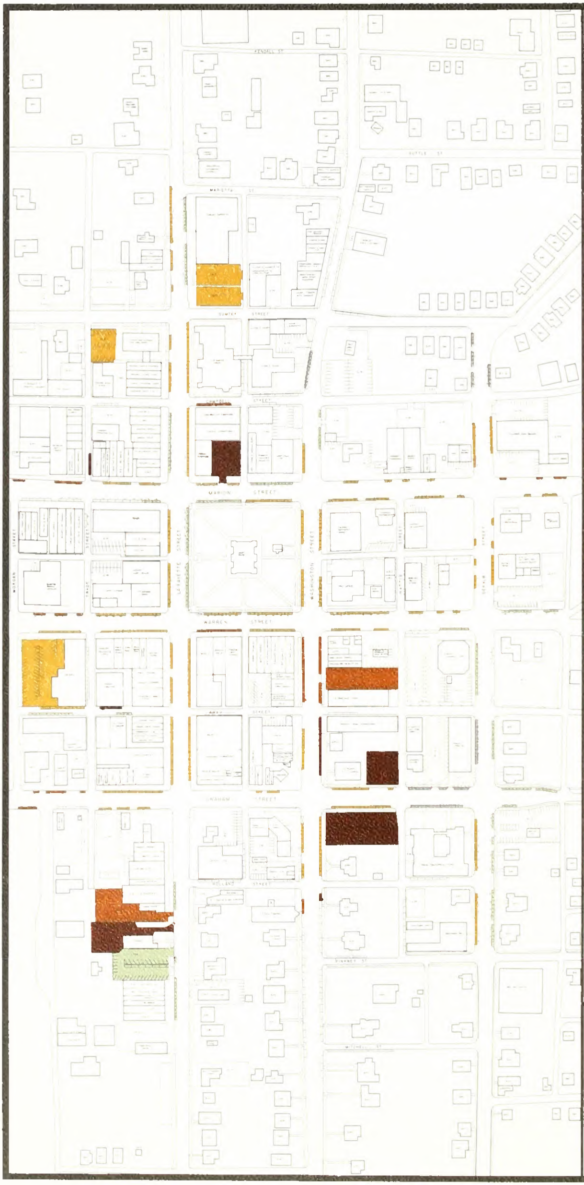
Public

The city metered parking lot located at the intersection of Graham Street and Washington Street has 64 parking spaces with ten hour meters. The percent usage of these spaces was 54.8% which is probably good considering that this lot is located several blocks from the main shopping area of downtown. Turnover was only 2.2 vehicles per space, but duration was an average of 103.8 minutes. These last two figures indicate that the lot is used mainly by long term parkers and employees which is what the lot was designed for. However, if greater use could be made by employees of this lot, it would help to relieve some of the shortages in the main shopping area.

The Baptist Church parking lots located on the corner of Lafayette Street and Sumter Street are unpaved, unmarked, and unmetered. (Since the survey the lot has been paved and meters installed.) Mainly because they are unmarked and perhaps unpaved the percent usage for the first lot is only 48.7% and for the second only 56.2%. The usage is maintained at this level by all day parkers exclusively. While these lots, if marked, could probably hold 22 vehicles each, we find the last lot with only 11 and the second with only 13. These lots are not far from the main shopping area and should be used by customers as well as employees.

Public for Specific Use

The parking lot behind Cleveland Savings and Loan off Lafayette Street, has 17 paved and marked spaces and had a percent usage of 28.6%. The turnover was 2.3 vehicles per space and the duration was 52.2 minutes. While the percent usage is a little low, the lot is doing well what it was designed for.



SHELBY, N.C.

DURATION

LEGEND

Average Time Each Car Parked At Space

🟫	75+ Minutes
🟧	60 to 74 Minutes
🟨	45 to 59 Minutes
🟩	30 to 44 Minutes
⬜	29 or Less Minutes

CENTRAL BUSINESS DISTRICT

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The parking lot beside Cal-Tone Paint Company off Lafayette Street has 37 paved and marked spaces and had a percent usage of 29.2%. The turnover was 1.2 per space and the duration was 105.6 minutes. These figures indicate that some employee and/or long term parkers are using this lot. The long term parkers are probably using the stores in the immediate area rather than walking to the main shopping area, which is several blocks away.

Off Lafayette Street and beside Home Credit Company are 26 paved and marked spaces which had a percent usage of 52.8%, a turnover of 3.7 vehicles per space, and a duration of 60.6 minutes. All these figures indicate that this parking lot is being used well for its designed purpose.

The Sears parking lot off Warren Street and Morgan Street has 48 paved and marked spaces. The percent usage was 73.1%, the turnover 6.0 vehicles per space and the duration 51.6 minutes. All of these are relatively high figures. The nearness to the main shopping area, less than a block away, probably indicates that some shoppers are also going to other nearby stores as well as Sears. The survey did not reveal any all day parkers but a few spaces were occupied for several hours. This is probably the most desirable parking lot for customer use in the general core business district.

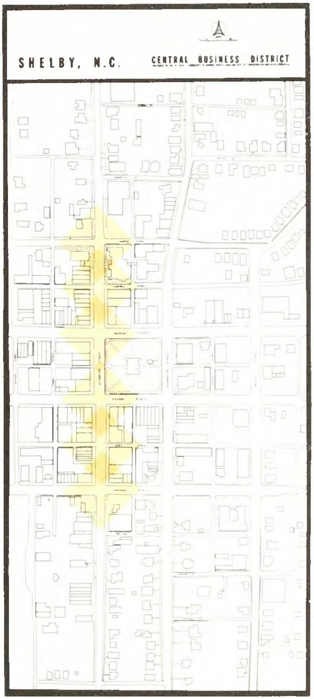
Private

Four private parking lots were surveyed in the CBD: (1) off Marion Street beside Sterchi Furniture, (2) off Lafayette Street behind First Federal, (3) off Washington Street beside the Cleveland Times, and (4) off Graham Street behind Dick Palmer Gifts and Flowers. These lots represented a combined total of 125 paved and marked parking spaces. All the lots had low turnover (less than two per space) and high duration (over 100 minutes). Only two showed low percentage usage, one being behind First Federal with 37.4% and the other beside the Cleveland Times with 39.5%. The parking lots behind Dick Palmer Gift and Flowers showed a percent usage of 71.9% and the parking lot beside Sterchi Furniture 96.8%.

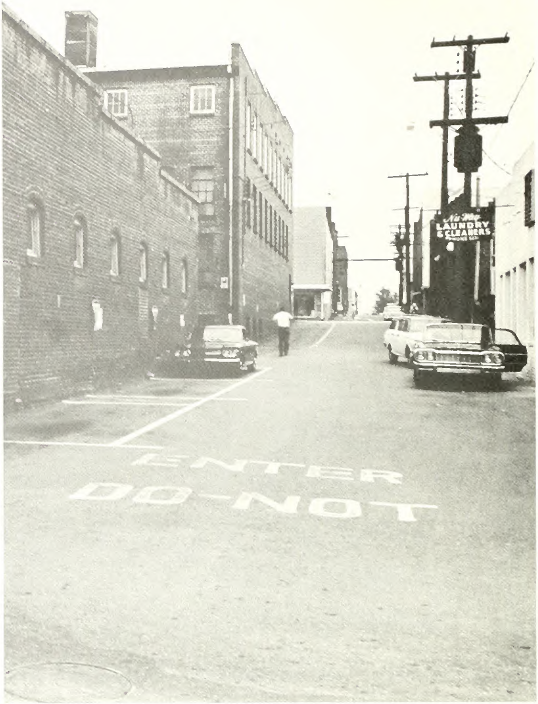
The figures in each case show the lots are generally being used as designed but could in the two instances noted above have a higher usage.

Walking Distances

Walking distance is one of the most important factors in the usage of any facility. The average walking distance or the average distance most shoppers will



250' WALKING DISTANCE



walk from their cars to their destination was determined to be somewhere in the neighborhood of 223 feet.*

The map on page18 shows the number of key parking spaces located within 250 feet of the major intersections of Lafayette Street (from Graham to Sumter Street). The map shows that although there are a total of 549 on-street spaces in the downtown area only 175 spaces are within easy walking distance of the major stores. The percentage usage map on page 10 indicates the lower usage of the facilities outside this distance. Most of the parkers outside this distance probably had destinations outside the primary shopping area. This information further supports the statement that people just will not walk any great distance to shop.

Meter Feeders

Another important aspect of the parking survey is the determination of the type and number of illegal parkers. Primary in this group of illegal parkers is the "meter feeder." The "meter feeder" is usually,but not in all cases, the employee who occupies one parking space all morning, afternoon, or even all day by continually keeping time on the meter. In some cases the "meter feeder" knows the routine of the officer checking the meters so well that he only feeds the meter when the officer is approaching his meter, and thus saves several nickels a day as well as cheating the town and merchants. These "meter feeders" deprive prospective customers of good convenient places to park, and the merchants of profits. Oddly enough, some merchants condone this sort of practice and some participate in it themselves.

Of the 549 metered on-street spaces surveyed, 59 were found to be "meter feeders" or slightly over 10% of on-street metered spaces were used by one individual for three hours or more. The elimination of these "meter feeders" might be aided by the marking of vehicle tires by the officer checking meters. Then tickets could be given to those violating the one or two hour limits of the metered space.(See map on page 20.)

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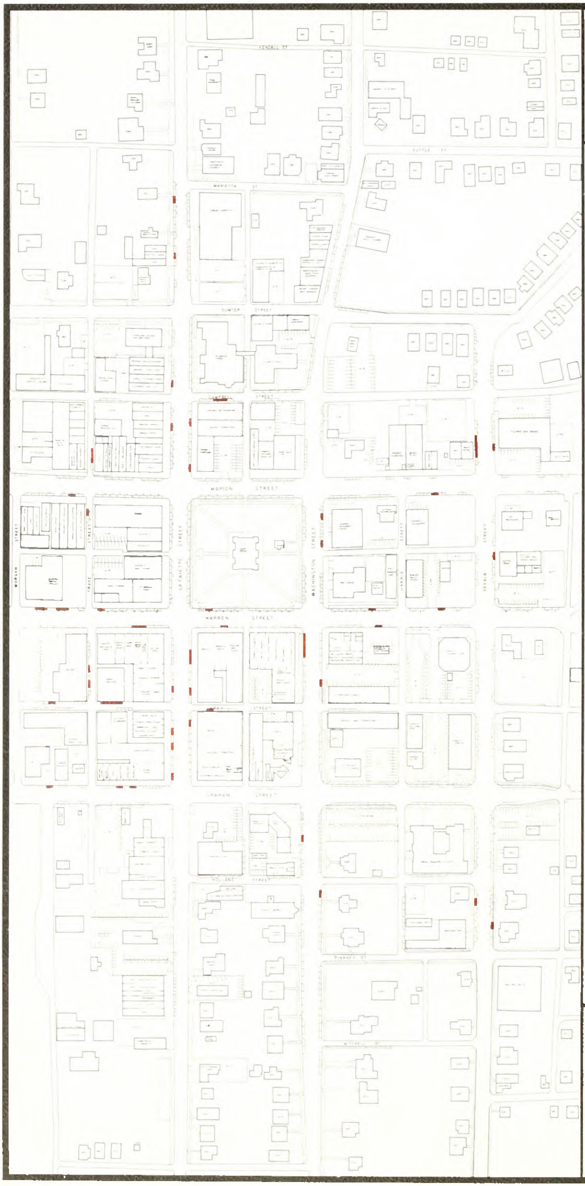
*The Eno Foundation for Highway Traffic Control reports in Parking that the average distance walked in cities under 25,000 population is 223 feet, and that 77 percent of the parkers walked less than one block. Parking, the Eno Foundation for Highway Traffic Control, Columbia Press, Saugatuck, Conn. 1957, Page 47.



SHELBY, N.C.

LEGEND

🟥 METER FEEDERS

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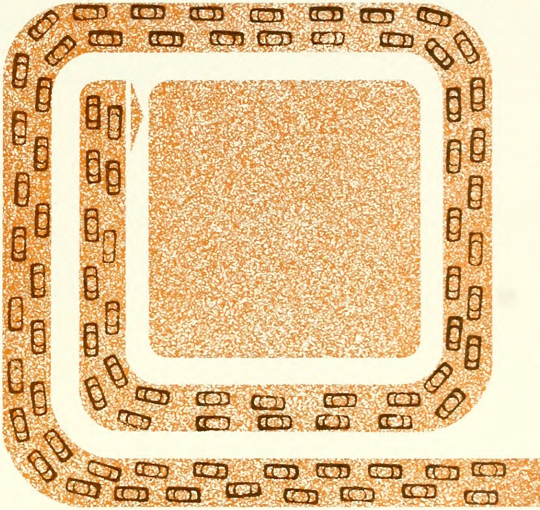
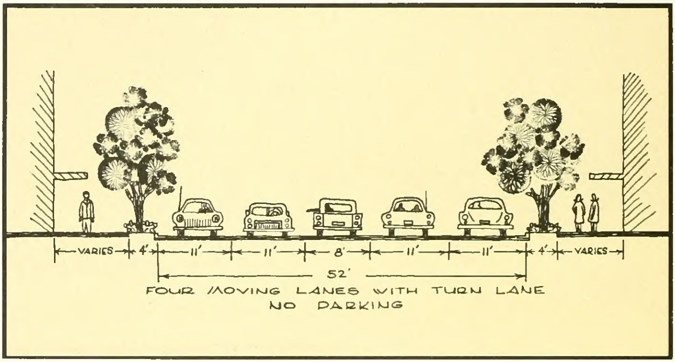
CIRCULATION & PARKING STANDARDS



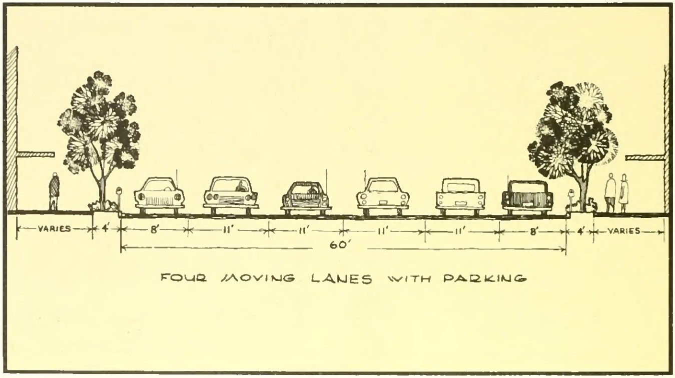
III. CIRCULATION AND PARKING STANDARDS

Streets - Minimum Right-of-Way and Paving Widths

Several of the streets in the central business district of Shelby are too narrow to allow adequate traffic flow. If they are to be widened or any new streets developed in the future, all should meet mimimum standards that would alleviate any inadequacy. Most of the other streets in Downtown Shelby meet or exceed minimum standards.



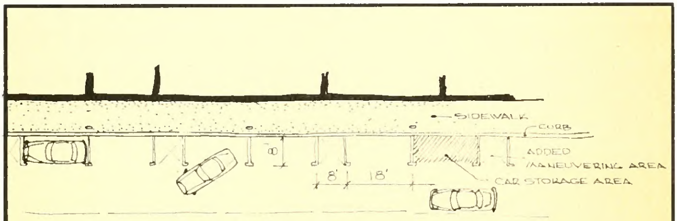
FOUR MOVING LANES WITH TURN LANE
NO PARKING



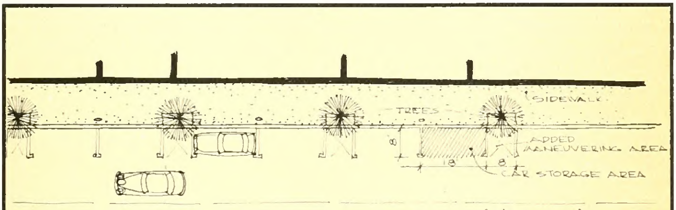
FOUR MOVING LANES WITH PARKING

Parking Standards

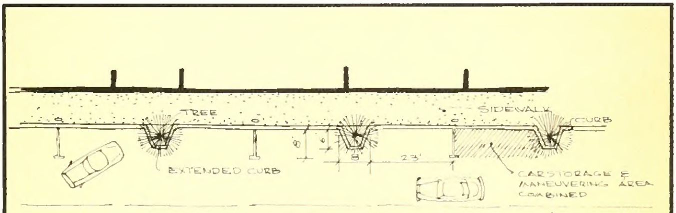
Any future development concerning on-street parking spaces should consider the following standards for on-street parking.



ON STREET PARKING – NARROW SIDEWALK



ON STREET PARKING – WIDE SIDEWALK (12' MINIMUM)

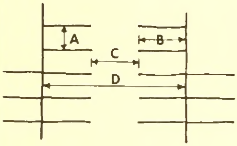


ON STREET PARKING – NARROW SIDEWALK / TREES

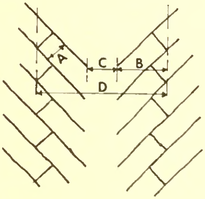
In the development of future off-street parking facilities several considerations should be kept in mind. First, the lot must be accessible and clearly convenient to the major shopping area. Second, it should not be overly expensive to the customer. Third, the lots should be well laid out and attractively presented to the user.

Development of the lots should be carried out with three different type parkers kept in mind. The first type parker is the short term shopper whose destination is one of the retail shops or professional offices in the core area of downtown. This type parker should be provided with the most convenient lot in regard to easy accessibility and nearness to the destination.

The second type of parker to be provided for is the long term shopper. In Shelby this type of parker probably comes to shop from an area that is outside the urban limits. Since a shopper from the greater trading area makes fewer trips, he needs more time in which to complete his business. Lots for this type parker must still be accessible, but they can be further from the main core of stores, still remaining on the fringe of the business area. The lots must still be constructed with the requirements of attractiveness kept in mind, and they must be constructed in an area where the parker will not be afraid to leave his automobile.

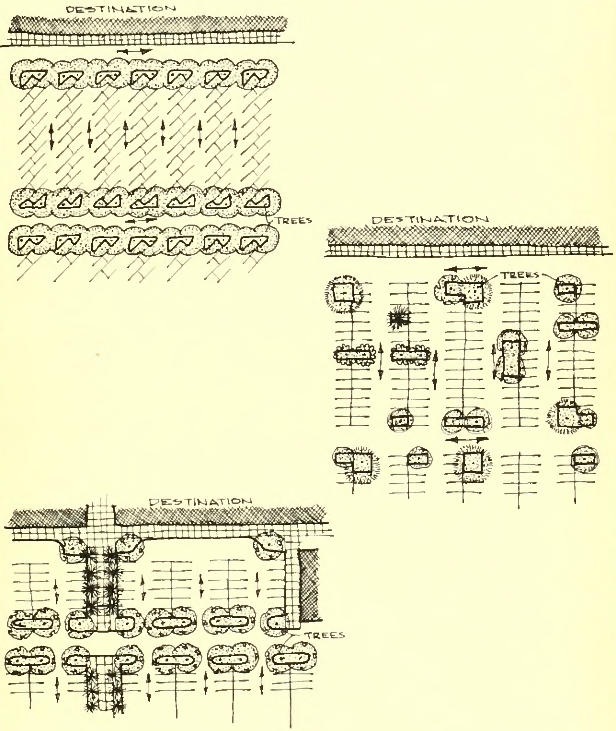


	A	B	C	D
	STALL WIDTH	STALL LENGTH	AISLE WIDTH	OVERALL WIDTH CURB TO CURB
90° parking	8'-6"	19'-0"	25'-0"	63'-0"
	9'-0"	19'-0"	25'-0"	63'-0"
	9'-6"	19'-0"	24'-0"	62'-0"
	10'-0"	19'-0"	24'-0"	62'-0"



	A	B	C	D
	STALL WIDTH	STALL TO CURB 19' LONG STALL	AISLE WIDTH	OVERALL WIDTH CURB TO CURB
45° parking	8'-6"	19'-6"	13'-6"	52'-6"
	9'-0"	20'-0"	13'-0"	53'-0"
	9'-6"	20'-0"	13'-0"	53'-0"
	10'-0"	20'-6"	13'-0"	54'-0"

The third type of parker to be accommodated is the employee. The employee is another type of long term parker, but different still from the long term shopper. The employee needs a space for an all day period rather than for three or four hours as in the case of the long term shopper. The employees lot should also be on the fringe of the core area and should be attractive and safe.

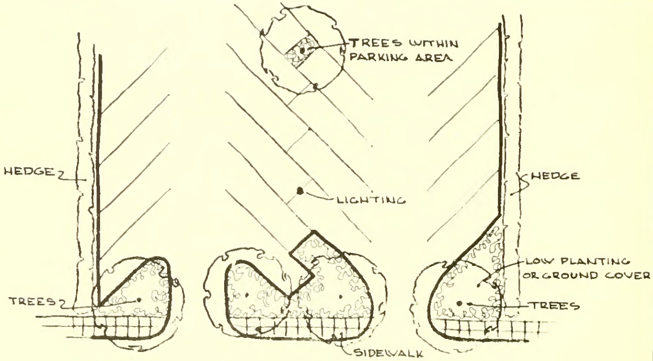


EXAMPLES OF WELL LANDSCAPED PARKING LOTS

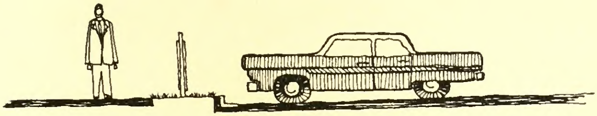
Visual Appearance

The typical parking lot in Downtown Shelby regardless of its location detracts from the visual environment of the area. Parking lots in all areas of the city can and should be more than just bare utilities. Concrete or asphalt parking lots no matter how efficiently they work, how well they are paved, or how neatly the spaces are marked, are generally the least attractive visual elements in the central business district of any town. In addition to proper grading, paving, curb and gutter, signs, and lighting, other landscaping improvements should be considered to supplement this basic barrenness. A properly landscaped lot will augment prestige and appearance and will contribute greenery to areas devoid of natural beauty. Landscaping helps screen lots from passerbys and occupants of nearby buildings, and reduces the nuisance potential of lights, exhaust fumes and noise. Proper landscaping can help control circulation of cars and pedestrians, identify entrances and exits, provide reference points for locating cars in large lots, and give shade to people and cars.

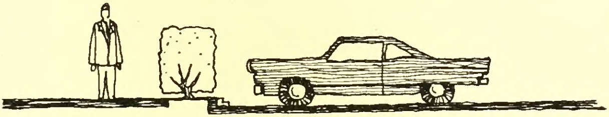
The planting of trees is one of the basic requirements in the landscaping of parking lots. Trees screen, shade and add value and beauty to the property. They require little maintenance and take little ground space. Trees which have low branches are to be avoided, as well as trees that drop excessive amounts of sap, seeds, seed pods, fruits, or blossoms.



TYPICAL PARKING LOT LANDSCAPING SCHEME

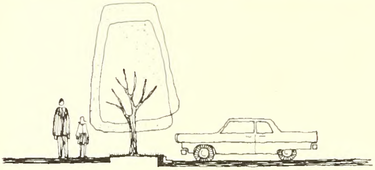


FENCE BARRIER

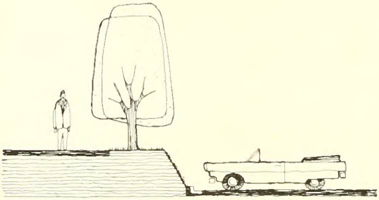


HEDGE BARRIER

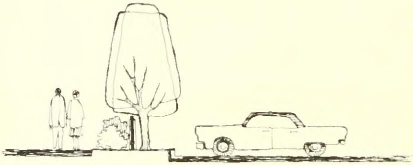
Trees selected should be those not easily subject to disease. They should be able to get along with normal rainfall and not be particularly attractive to insects. They should grow at a reasonable rate, have a long life span, and bear foliage of a pleasant shape and color. Other considerations in the selection of the proper tree would include the shape of tree required, its ultimate height, the foliage characteristics, texture and color, the shape of the branches when they are leafless, the texture and color of the bark. The addition of aesthetic amenities could possibly effect another aspect of parking in Shelby, and that is who parks in the lots. At present most of the off-street lots are used by employees partly because they are so far away from the stores as to be inconvenient to shoppers but also because most of the off-street lots are so unattractive and inaccessible that the shoppers would not be able to park their cars in the lots with ease or leave them there with any ease of mind. However, if the lots were made attractive by the addition of landscaped walkways, benches, fountains, trees, shrubs, and flowers, the short term shopper might be a little more willing to park there and walk the longer distance.



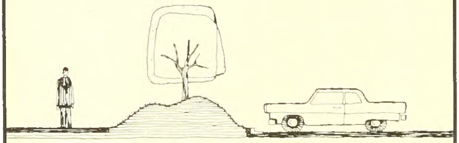
TREE BARRIER



DEPRESSED LOT

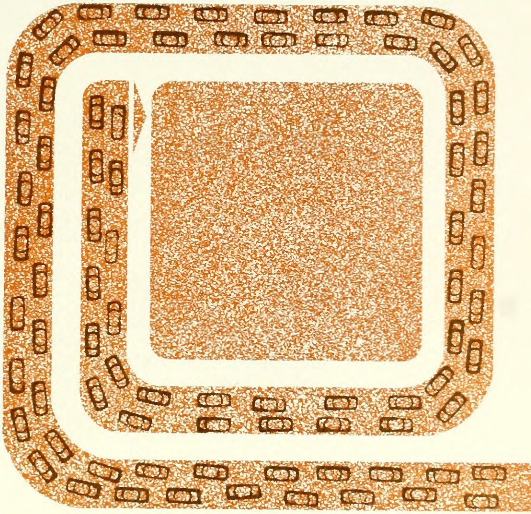


TREE AND HEDGE BARRIER

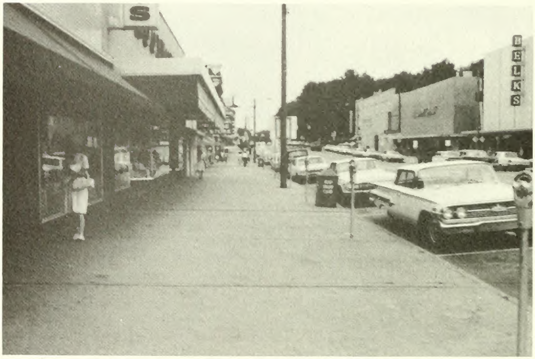


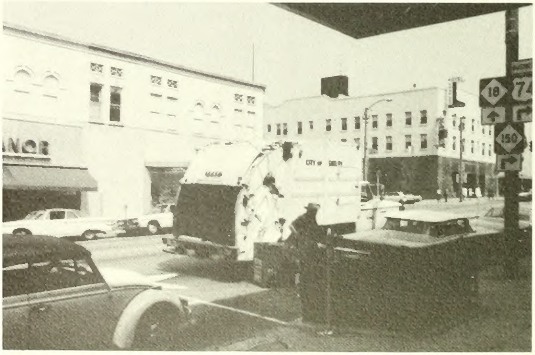
MOUND BARRIER

ANALYSIS



J.C. PENNEY COMPANY
PENNEYS


BELKS


18
74
150

IV. ANALYSIS

Circulation System Inadequacies

Traffic congestion resulting from non-CBD oriented traffic is one of the most serious problems affecting the central business district of Shelby. This is due primarily to the north-south traffic routed down Lafayette Street via N.C. 18. According to 1966 traffic counts, as many as 11,500 vehicles per day are using Lafayette Street. Of these 11,500 vehicles, 4,000 to 7,000 are estimated to be passing through on N.C. 18 and are congesting the downtown circulation system. This through traffic is in direct conflict with the local CBD oriented traffic. The majority of the east-west through movements are handled by U.S. 74 bypass south of the Shelby central business district. U.S. 74 handles between 6,000 and 12,000 vehicles per day. There are however some major intercity, east-west movements that are funneled through the CBD. These traffic movements are handled primarily by Marion and Warren Streets, both of which bisect the central business district. Marion Street average traffic volumes varied from 6,300 to 12,000 vehicles per day and Warren Street average volumes varied from 2,900 to 6,000 vehicles per day. Morgan Street and Sumter Street are the only streets in the downtown area which are substandard in width. Morgan Street parallels the railroad and is only 22' wide. Although no traffic volumes are available for Morgan Street, it is evident that the street is inadequate for the traffic it serves. Morgan Street is presently used for traffic circulation around the western parts of the downtown area. Sumter Street is approximately 36' wide, carrying three lanes of traffic with no parking along some sections or two lanes of traffic with parking on both sides along other sections.

Most of the other streets within the CBD,(Lafayette, Washington, Dekalb, Marion, Warren and Graham) are 60' wide (curb-to-curb). This adequately provides for four lanes of moving traffic with parallel parking on both sides of the street.

Parking Deficiencies

"The reasons for providing attractive downtown parking are apparent. Parking has become a major factor in the success of many downtown enterprises. It is an important complementary land use which reinforces the vitality of major activities, serves as an incentive to investment decisions, and is a dynamic force in shaping or directing new developments. It does not preempt prime land from major alternate uses. This is substantiated by special parking studies conducted in Los Angeles and Hartford. These studies indicated that parking augments rather than replaces commercial activities, such as department stores or hotels."

Another major factor in the appearance of parking lots is the need to conceal the parked automobiles. This may be accomplished by a number of means some of which are shown in the accompanying illustrations.

Some of the main considerations in the choice of a visual barrier are zoning ordinance restrictions, initial cost, upkeep, character of nearby buildings, drainage and the particular visual appearance desired.

To arrive at the basic design which would include the proper amenities, a landscape architect should be retained to prepare plans for the lot. Besides just selecting the proper trees and shrubs the landscape architect should be able to determine the best layout and circulation system, as well as the location of fences, barriers, walls, benches, trees, shrubs so as to present an attractive appearance for the parkers and passerbys.

"Parking benefits are widespread. Many retail establishments indicate that convenient parking substantially increases their sales. Department stores in major cities frequently estimate the value of a parking space as the generator of up to $10,000 in annual retail sales. Thus, if downtown parking is neglected downtown stores face a competitive disadvantage."*

From the above statement it can be seen that the central business district must have convenient, adequate, and attractive parking for the customer. Shelby's Central Business District has 1,729 on-street and off-street parking spaces. Five hundred and forty-nine (549) spaces are on-street metered spaces for the public or provided by stores for their customers. Of the 1,308 customer parking spaces listed above only about 250 spaces can be found within 500'** of the intersections of Lafayette Street with Warren, Marion, Arey and Graham Streets. Of the 250 spaces, 64 are in lots provided by merchants with the other 186 being on-street spaces. All other customer parking spaces are located beyond the distance most shoppers will walk.

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*Parking in the City Center, Wilbur Smith and Associates, New Haven, Conn., 1965, P. IV.

**This is over twice the average walking distance (223') discussed earlier in this report.

Within 500' of these same intersections are about 137 private spaces for store owners, employees, and other persons. Generally speaking, employee parking should be provided around the periphery of the downtown area, both on-street and in off-street lots, with the customer parking being provided close to the heart or main shopping area.

From the foregoing information it is seen that the area having the largest demand and the lowest supply is the 500' from the intersections of Lafayette Street with Warren, Marion, Arey and Graham Streets. It is in this area that attempts to provide customer parking should be concentrated.

In the foregoing paragraphs, we have seen what parking exists in Downtown Shelby at the present time. In order to determine how much parking should be provided in Downtown Shelby, the parking has to be measured by some standard or comparable situation.

One method of determining needed parking facilities is to compare the area devoted to parking to the gross floor space in the buildings by a predetermined ratio. This method is used by many of the large shopping centers where developers provide as much as five time the area in parking as in floor space. A ratio of three square feet of parking area to one square foot of gross floor area is recommended by the Community Builders Council. In determining parking needs by this method, 400 square feet of area for each car is recommended. (This allowance includes access drives, storage spaces, and incidental areas such as unusable corners or landscape plots.) Since it is unreasonable to expect parking ratios in downtown areas to be the same as for a shopping center because of lack of space and higher land values, a ratio of one square foot of parking to one square foot of building area will be used. This one-to-one ratio is felt to be a good average which falls between those commercial uses which would require more parking and those which would require less. Using the above ratio we find the following:

Existing Use of Buildings in Shelby CBD
Primary Trade - 258,350 sq. ft.
Consumer Services - 31,675 sq. ft.
Financial, Advisory, and Government - 176,925 sq.ft.
Business and Repair Services - 122,450 sq. ft.
Religious, Education & Welfare Service - 105,450 sq. ft.

Cultural, Entertainment and Recreational - 30,450 sq. ft.

Transportation (Bus Station, etc.) 2,000 sq. ft.

727,300 sq. ft. of building area at a 1 to 1 ratio yields 1,818 total needed parking spaces.

Public or Customer Parking provided at present 1,308 parking spaces - Present Deficiency 510 parking spaces.

Another method of determining need for parking spaces is to compare the number of spaces with the population of the city. Using the population of the City of Shelby as of January 1966 of 16,941 we arrive at the following existing ratios.

On-street parking -549 spaces - 32 spaces per 1,000 population.

Off-street parking -759 spaces - 45 spaces per 1,000 population.

Total 1,308 spaces - 77 spaces per 1,000 population.

In order to evaluate the preceding information, some standard or comparable figures must be used. In 20 cities with populations under 25,000 where the U.S. Bureau of Public Roads has made parking studies, the following was found:

Average number of curb stalls per 1,000 population - 60.

Average number of off-street stalls per 1,000 population - 34.

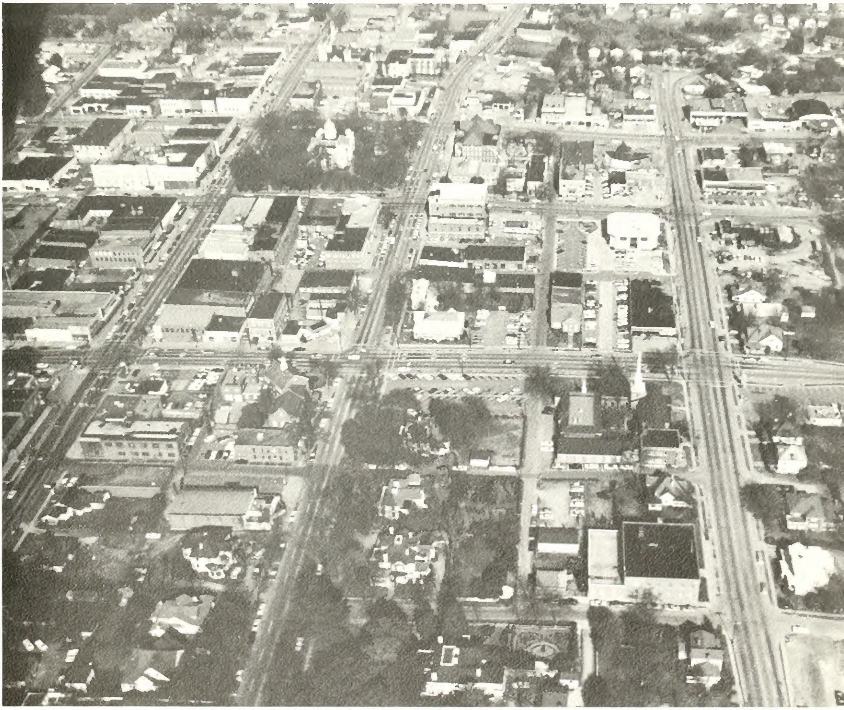
If these averages are compared with the City of Shelby, the following is found:

On-street parking - deficient 28 spaces per 1,000 population or 476 spaces.

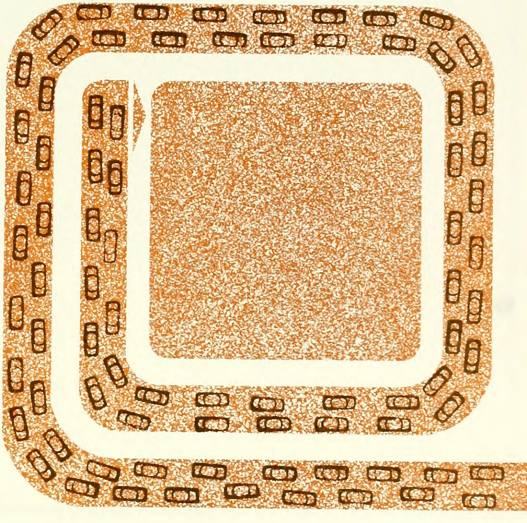
Off-street parking - surplus 11 spaces per 1,000 population or 187 spaces.

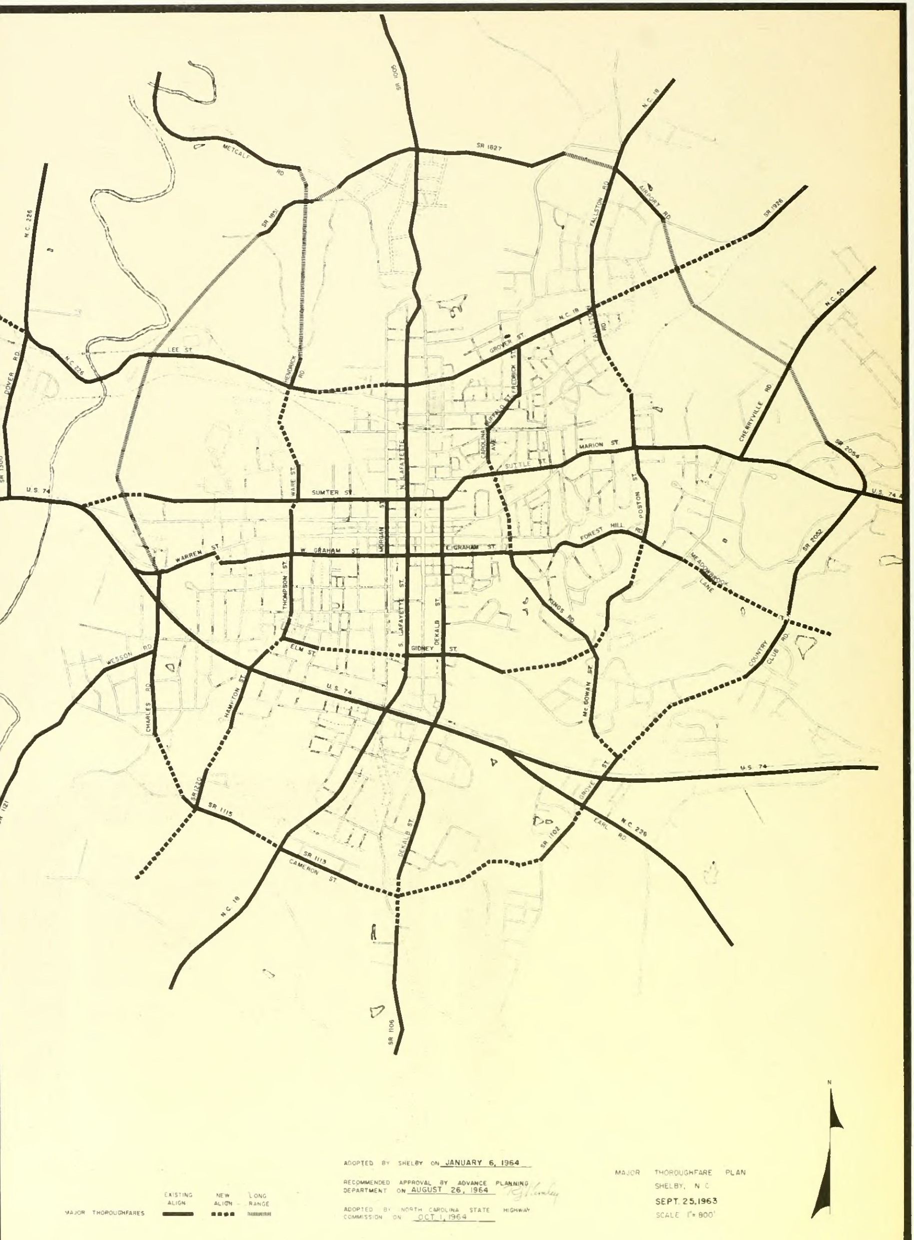
Total deficiency - 289 spaces.

It should be noted that the figure for off-street spaces showing a surplus of 187 spaces above the comparable U.S. average is not a good comparison, as the vast majority of the spaces are located well over 500' from the main shopping area where most of the floor space figures were used. Were it possible to eliminate (which it is not) some of these off-street spaces a higher deficiency figure would be found. Also, the population figure used included only those persons residing within the city limits of Shelby, (16,941) not the actual number of persons that use and park in Downtown Shelby. If the trade area population of approximately 66,000 were used then the deficiency would be much greater. This was not done because of the lack of comparable data. In addition, it should be pointed out that the figures obtained from the Bureau of Public Roads are average existing situations - not recommended standards.



FUTURE PLANS





ADOPTED BY SHELBY ON JANUARY 6, 1964

RECOMMENDED APPROVAL BY ADVANCE PLANNING DEPARTMENT ON AUGUST 26, 1964

ADOPTED BY NORTH CAROLINA STATE HIGHWAY COMMISSION ON OCT. 1, 1964

MAJOR THOROUGHFARE PLAN
SHELBY, N.C.
SEPT. 25, 1963
SCALE 1" = 800'

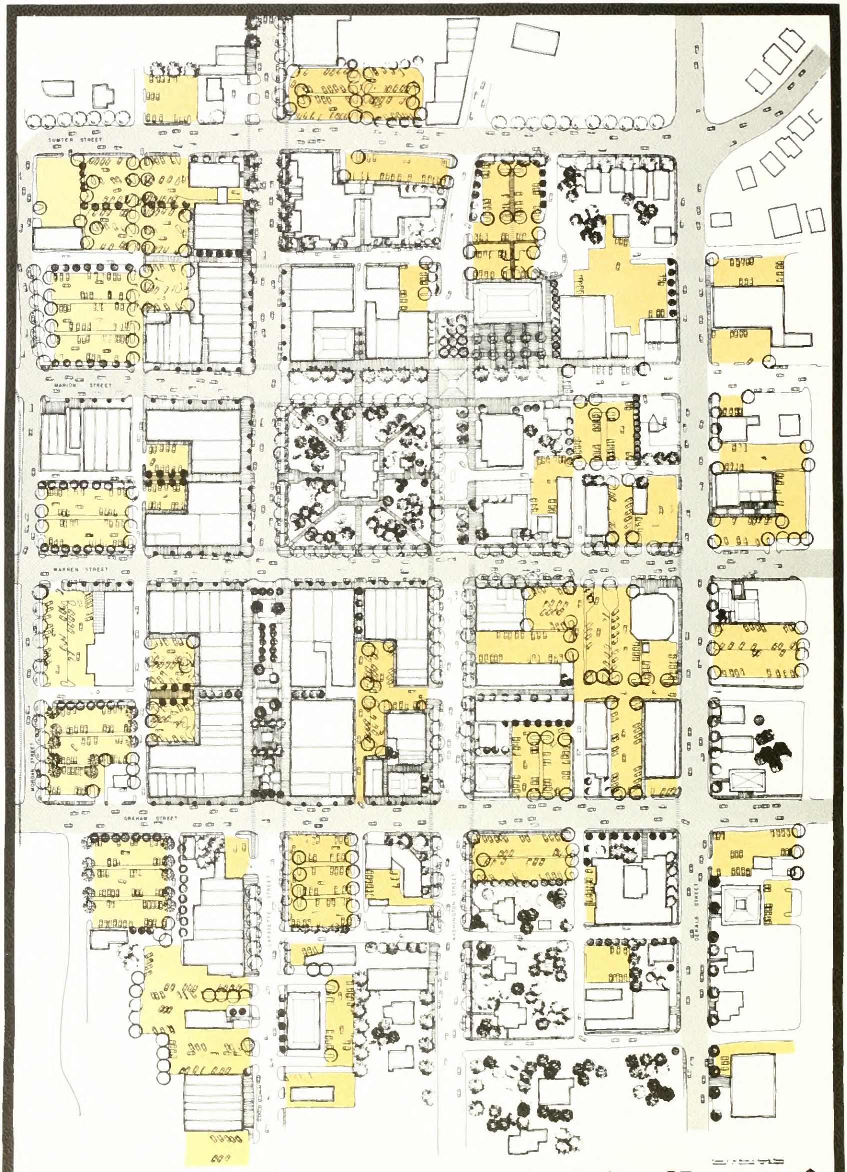
V. FUTURE PLANS

Traffic

A major thoroughfare plan has been jointly adopted by the City of Shelby and the North Carolina Highway Commission. This plan, in addition to providing a system of thoroughfares for the entire city, takes into account the needs of the Shelby Central Business District. Traffic coming into the downtown area is routed along a proposed central business district loop consisting of Dekalb, Sumter, Morgan and Graham Streets. Major east-west circulation is provided by both Graham and Sumter. This system provides continuous circulation completely around the central business district. An addition to the thoroughfare plan suggested by the downtown plan is the extension of Dekalb Street to the north so that it ties into Grover Street and would take the N.C. 18 traffic away from Lafayette Street which runs through the center of town. The accompanying illustration indicates the proposed downtown traffic circulation system.

Parking

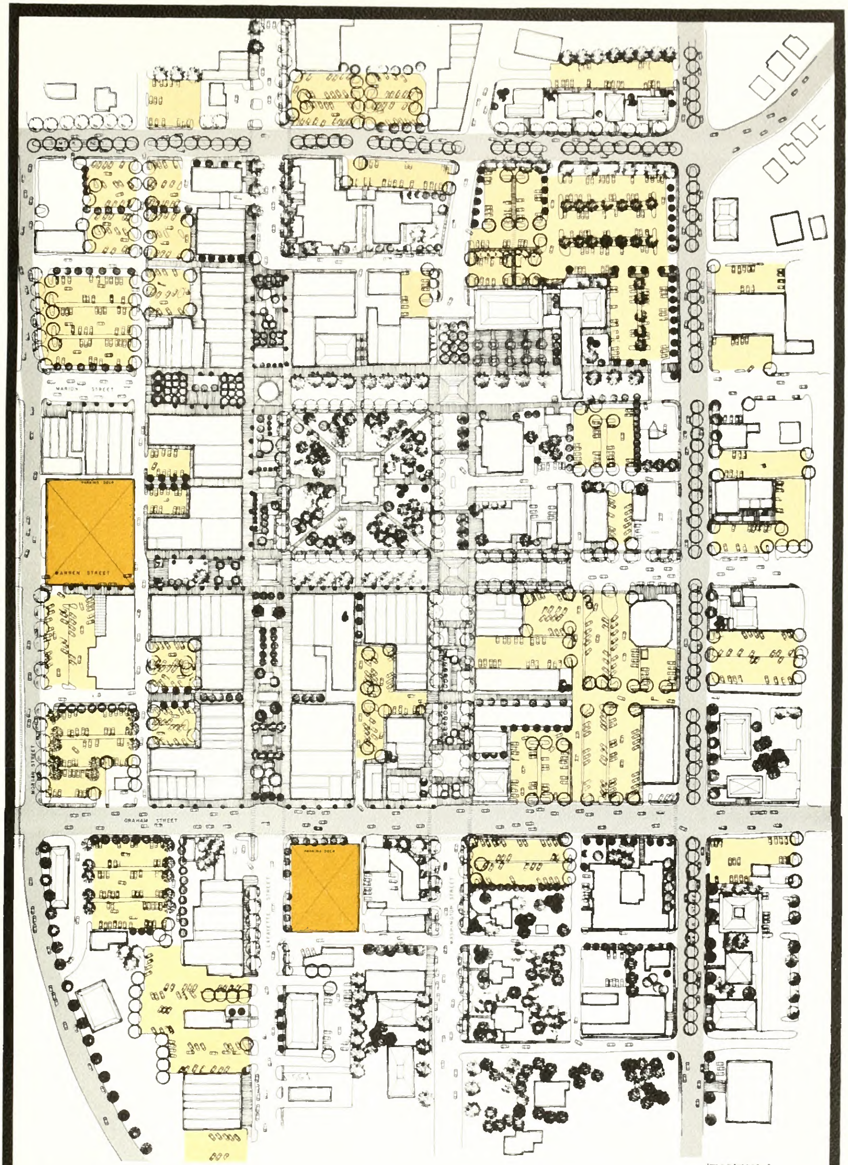
The Preliminary Design Plan for 1985 indicates many off-street parking facilities located in a ring around the main shopping core. It is imperative that future parking lots are located close to the areas they are designed to serve. Two locations shown on the long range plan are indicated as decks. These are (1) the portion of the block at the southeast intersection of Lafayette Street and Graham Street, behind city hall, and (2) the northeast corner and the intersection of Morgan Street and Warren Street. Both of these locations are ideal for a deck because they are conveniently located in regard to the main shopping area of Shelby. As an interim measure, until such time as a deck should be proven economically feasible, on-grade parking could be provided in these sites. A program should be undertaken immediately to obtain off-street parking in the locations shown on the plan.



SHELBY, N. C. CENTRAL BUSINESS DISTRICT

STAGE ONE

🟨 PARKING LOTS

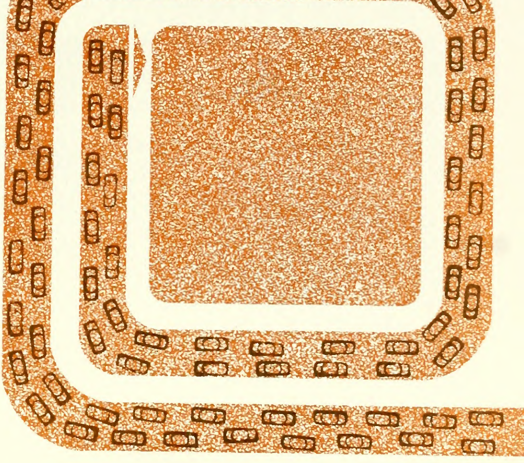


SHELBY, N. C. CENTRAL BUSINESS DISTRICT

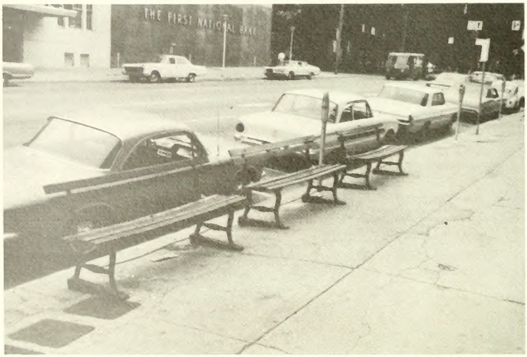
STAGE TWO

🟨 PARKING LOTS 🟧 PARKING DECKS

SUMMARY AND RECOMMENDATIONS



PRIVATE PARKING LOT
PRIVATE PARK


THE FIRST NATIONAL BANK

VI. SUMMARY AND RECOMMENDATIONS

North Carolina Highway 18 running down the main street of the Shelby Central Business District presents one of the main problems within the area. Lafayette Street with the main shops and stores along both sides should be used as a local shopping street rather than a thoroughfare to move traffic through the city. Work should be continued to try and move this through traffic to another street or streets.

At the present time there is a large deficiency of off-street public parking spaces in the main shopping district and a small deficiency on the fringe. In the future, this deficiency will have to be met and additional spaces will have to be provided if the downtown area is to grow.

The parking analysis indicated that there was an existing deficit of 510 parking spaces as a high figure and 289 parking spaces as a low figure. A figure somewhere between these two of perhaps 400 spaces is probably what is needed in Downtown Shelby. However, even if we use the low figure of 289 needed spaces, this is still a large number, and they are needed now and should, of course, be located as close to the intersections of Lafayette Street with Warren, Marion, Arey and Graham Streets as practical.

It is unrealistic to think that lots could be built far out on the edge of the main shopping district and that customers would use them with any regularity. For this reason, it is recommended that the City of Shelby and the downtown merchants consider the feasibility of constructing parking decks or parking garages as a possible solution. Other lots on the fringe of the core business district might be constructed for employees and long term parkers.

Although enforcement of parking meters is good, improved enforcement through the use of additional personnel assigned solely to check the meters by irregular routes is recommended. It is felt that better enforcement would result in less "meter feeding" and thus more available parking spaces for customers. It would also increase the income from the meters and from parking tickets.

RECOMMENDATIONS

1. That Dekalb Street be extended to the north to tie into Grover Street and N.C. 18 be routed on Dekalb.

2. That Morgan and Sumter Streets be improved to serve as the western and northern sides of a belt loop around the central business district.

3. That the 289-510 deficient parking spaces be constructed in the next five years within a convenient walking distance of the major retail stores, and that at least 50 to 100 spaces be constructed within two years.

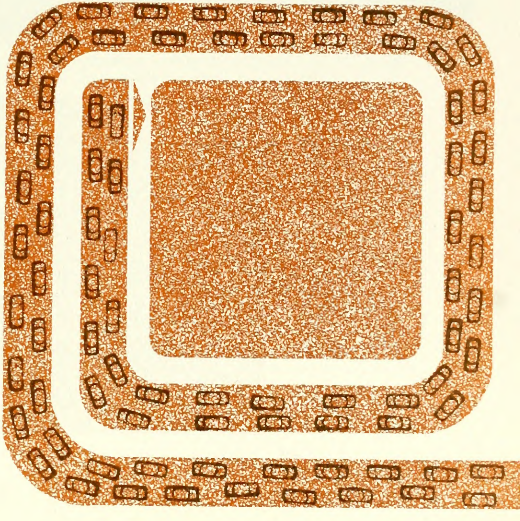
4. That a specific parking body such as a Parking Authority or other Advisory Committee be created to help the city maintain a parking program that will lead to the construction of the deficient parking spaces in the most effective places.

5. That the standards contained in this report be maintained whenever a new street is constructed or an old one is improved.

6. That the standards contained in this report be maintained where practical in the provision of new parking spaces - both on and off-street.

7. That both existing and new parking facilities be landscaped with trees, planters, etc.

IMPLEMENTATION



HOTEL CHARLES

VII. IMPLEMENTATION

Before the parking program for Shelby can be implemented, the question of "Who should be responsible for providing parking facilities in a community?" should be considered. Before this question is answered, it is helpful to divide a parking program into four component parts to further understand the complicated problem.

1. Planning
2. Financing
3. Site Acquisition
4. Construction and Operation

1. Planning - This involved the survey work, analysis and preparation of a recommended specific plan and program. There is little doubt that this phase of the total program should be placed under the responsibility of the municipality - either through existing agencies such as a subcommittee of the planning board, or through a parking authority. In either case the planning should be done with close and active participation of specially interested business, professional and civic groups.

2. Financing - In many of the smaller cities such as Shelby, even though there is a tremendous need for additional parking facilities, the turnover rates and usages are not high enough to make the provision of parking a very lucrative business. For this reason, it is usually necessary that the financing of such facilities stem, if not from the local municipal government entirely, with some help or stimulus from the government. It should be noted, however, that whether a public or private agency sponsors the financing of off-street parking projects, the funds will in most cases be derived from private enterprises (through bonds) even in a municipality sponsored project. An alternative to municipal financed projects is the situation where a particular project is financed by the municipality and the cost assessed directly to the benefited merchants.

3. Land Acquisition - In the establishment of a parking program there are a few basic requirements which should be met. One of the main requirements is that the parking facilities should be established on a permanent basis (not sold out when an attractive bid for the property comes along). Another requirement is that the design of the facility be suited to surrounding street and traffic conditions. Also fee schedules should be required to be such as will attract the

intended type of parkers and discourage others (for example, by offering low rates for the first two hours followed by substantial hourly rates, encourage the short term parker or shopper and discourage the long time or all day employee parker.

If sites are acquired by the municipality the above requirements can be met with much more assurance than if the parking facilities are provided by private enterprise.

Another point in favor of municipal acquisition is that to acquire adequate parking facilities numerous properties under differing ownership must be assembled and purchased. This must be done keeping the total property cost down to a reasonable minimum. Sometimes to accomplish this, municipal powers of eminent domain and condemnation procedures must be used.

Even if the municipality assumes responsibility for site acquisition, there is nothing to prevent local property owners from sharing in the financing as through a benefit assessment plan.

4. Construction and Operation - Generally, the responsibility for construction and operation of parking facilities usually involves the same group.

As the forementioned facts of the parking program (planning, financing and land acquisition) tend to be public in character, it may be desirable for the construction, maintenance, and operation of the facilities to be left to private enterprise, if it is willing and able to undertake the entrepreneurial responsibilities involved. In such a case the municipality would plan and purchase the facility and then lease the land to an operating company or small group of businessmen for construction and operation. Financing could be either municipal or could be handled by contributions from members directly affected in proportion to the benefits derived and their ability to pay.

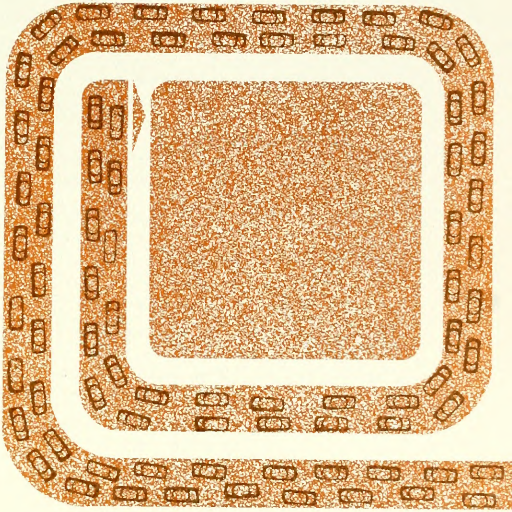
There is no better example of imaginative private enterprise coupled with municipal participation where the municipality acquires and plans the facility and the merchants contribute to the construction and operation of the facility under a park and shop or validation plan. Under this plan merchants and parking operators unite to sponsor a program to make inexpensive or free parking available to shoppers. When a shopper makes a purchase, the merchant puts a stamp on the parking claim check. This stamp or validation is good for an hour's free parking.

Setting up the Machinery for Implementation

Once it has become evident that there is a parking problem sufficiently serious to require action, it becomes extremely important to place the responsibility for guiding the program into a centralized authority. This may be the mayor, the city manager, the Chamber of Commerce, a merchants committee, the Planning Board or a special parking authority. All efforts should be consolidated, since no satisfactory solution can be expected from piecemeal and uncoordinated private and public action with no one having authority to integrate the program.

Cities in North Carolina under State Statutes (G.S. 160-475-496) have the authority to establish a parking authority. This "parking authority" shall be constituted as a public and a body corporate and politic and shall be able to exercise public powers as an agent of the city. The purpose of the authority as set up by law is to relieve traffic congestion of the streets and public places in the city by means of off-street parking facilities, and to that end to acquire, construct, improve, operate and maintain one or more parking projects in the city. It is recommended that the City of Shelby establish a parking authority according to the procedures set up under G.S. 160-475-496. This group should be given the responsibility of carrying out the recommendations relating to parking in this study.

MERCHANTS SURVEY



SHELBY

MERCHANT'S OPINION SURVEY

Question 1. Do you own or lease your present business area?

	Number of Replies	Percent of Total
Own their building	15	21
Lease their building	54	75
Rent their building	3	4

Question 2. What type of business are you in?

	Number of Replies
Retail Trade, General Merchandise	7
Retail Trade, Apparel	11
Retail Trade, Eating and Drinking	1
Retail Trade, Other	15
Retail Trade, Building Materials & Farm Equip.	3
Retail Trade, Automotive	3
Retail Trade, Furniture	8
Finance, Insurance and Real Estate	16
Professional Services	3
Personal	3

Question 3. Estimate the approximate percentage of your total dollar receipts in 1965 received from customers living in:

	Percent of Dollar Sales
Within Shelby city limits	51.734
Outside Shelby but within Cleveland Co.	36.614
Outside of Cleveland County	11.653

Question 4. How many employees do you have at present (including owner, clerks, salesmen, etc.)?

	Number of Stores
1 to 9 employees	51
10 to 19 employees	11
20 or more employees	10

772 total in 72 stores

Question 5. How many of your employees drive their own car to work regularly?

Of the 772 employees 507 drive regularly or 65.7%.

Question 6. How many off-street parking spaces do you provide for?

Owner and Employees	221
Customers	353
Total	574

Question 7. Do you feel that the present supply of parking spaces in the downtown area is adequate for present needs?

	Number of Replies	Percent of Total
Yes	3	4.4%
No	65	95.6%

Question 8. How can the parking situation be improved?

Parking lots	16
Angle Parking	9
Multi-level parking facility	1
Reduce over eagerness on part of bike police to give tickets	1
By Merchant's Association or similar committee	1
Close in city metered lots	1
Marking cars so as not to park all day	1
Public transportation	1
By giving out-of-town customers courtesy cards	1

Question 9. Would you favor a one-way system of streets in the downtown area?

	Number of Replies	Percent of Total
Yes	10	14.7
No	58	85.3

Question 10. How much floor space do you presently occupy?

	Number of Replies	Percent of Total
400 - 999 sq. ft.	4	3.7
1,000 - 4,999 sq. ft.	27	50
5,000 - sq. ft. and over	23	46.3

54 total replies
463,022 sq. ft. reported

Question 11. Does your business have any plans for expansion within the next five years.

	Number of Replies	Percent of Total
Yes	16	26.3
No	45	73.7

Question 12. Would you be willing to contribute financially (in proportion to your direct benefit) to provide off-street parking for customers in the downtown Shelby area?

	Number of Replies	Percent of Total
Yes	23	45.1
No	28	54.9

Need home office approval 4

Question 13. Would you favor the construction of a meeting place which would serve as a center for community activities, have public restroom facilities, and act as a meeting place for the general public?

	Number of Replies	Percent of Total
Yes	30	51.7
No	28	48.3

Question 14. Has the construction of shopping centers had an adverse effect on your business?

	Number of Replies	Percent of Total
Yes	13	21
No	49	79

Question 15. If you were establishing a business for the first time, would you locate at your present site?

	Number of Replies	Percent of Total
Yes	48	75
No	16	25

Question 16. When you do expand, where will it be?

	Number of Replies	Percent of Total
On the present site	18	42.9
Downtown	8	19.0
Shopping Center	4	9.5
Other	12	28.6

4 not included in figures on percent gave two answers.

Question 17. Which of the following do you feel are the major problems facing the Shelby Central Business District today?

	Number of Replies	Percent of Total
Lack of full variety and selection of goods	11	17.7
Inadequate customer facilities, such as restrooms, benches, lunch counters, etc.	21	33.9
Store appearance is generally out of date and unappealing	11	17.7
Inadequate on and off-street parking	54	87.1
Inadequate street lighting	1	1.6
Absentee ownership	6	9.7
Disinterested city government	9	14.5
Inconvenient opening and closing hrs.	6	9.7
Downtown buildings in poor condition	19	30.7
Congestion downtown streets	21	33.9
Absence of adequate loading spaces for trucks	15	24.2

Question 18. If you would remodel your store, would you confer with the CBD Committee and improve according to the plan?

	Number of Replies	Percent of Total
Yes	16	69.6
No	7	30.4

However, 2/3 of the merchants polled made no reply.

Question 19. Would you be in favor of a containerized system of garbage collection in the downtown area?

	Number of Replies	Percent of Total
Yes	29	64.4
No	16	35.6

Question 20. Would you participate financially in such a garbage collection in the downtown area?

	Number of Replies	Percent of Total
Yes	13	34.2
No	25	65.8

Question 21. If a unified canopy plan was proposed would you be willing to participate?

	Number of Replies	Percent of Total
Yes	21	55.3
No	17	44.7

Question 22. Would you be willing to participate in purchasing plants, trees and containers if the city would provide the installation and maintenance?

	Number of Replies	Percent of Total
Yes	28	65.1
No	15	34.9

TABLE A

STREET	NUMBER SPACES	1 HR. OR 2 HRS.	SPACE* HOURS	NUMBER OF VEHICLES	SPACE HOURS USED	PERCENT USAGE	TURNOVER	DURATION IN MINUTES
Lafayette	120	1	840	703	534	63.6	5.9	45.6
	5	2	35	20	11.5	32.9	4.0	34.8
Trade	5	1	35	12	19	54.3	2.4	94.8
	6	2	42	24	32.5	77.4	4.0	81.0
Washington	65	1	455	328	260	57.1	5.1	47.4
	14	2	98	48	48	49.0	3.4	60.0
Dekalb	68	1	476	74	83.5	17.5	1.1	67.8
	10	2	70	1	6	8.6	.6	360
Campbell	5	1	35	21	24	68.6	4.2	68.4
Marion	59	1	413	359	262	63.4	6.1	43.8
	17	2	119	59	48.5	40.8	3.3	49.2
Warren	75	1	525	463	416	79.2	6.2	54.0
Arey	8	1	56	27	26	46.4	3.4	57.6
	17	2	119	55	55	46.2	3.2	60.0
Graham	39	1	273	54	36.5	13.4	1.4	40.8
	27	2	189	155	133.5	70.6	5.7	51.6
Holland	7	1	49	22	15	30.6	3.1	40.8
	2	2	14	8	5	35.7	4.0	37.8
City Metered Parking Lot	64	10	448	142	245.5	54.8	2.2	103.8
Sumter & Lafayette	22	--	154	11	75	48.7	.5	408
Sumter & Lafayette	22	--	154	13	86.5	56.2	.6	402

TABLE A (con't)

STREET	NUMBER SPACES	1 HR. OR 2 HRS.	SPACE* HOURS	NUMBER OF VEHICLES	SPACE HOURS USED	PERCENT USAGE	TURNOVER	DURATION IN MINUTES
Cleveland S & L - Off Lafayette-Sumter	17	--	119	39	34	28.6	2.3	52.2
Marion Street-Sterchi Furniture	27	--	189	27	183	96.8	1	406.8
Sears - Off Warren - Morgan	48	--	336	287	245.5	73.1	6.0	51.6
Beside Cal-tone Paint Company - Off Lafayette	37	--	259	43	75.5	29.2	1.2	105.6
Behind First Federal - Off Lafayette	25	--	175	38	65.5	37.4	1.5	103.2
Beside Home Credit Co. - Off Lafayette	26	--	182	95	96	52.8	3.7	60.6
Beside Cleveland Times - Off Washington	42	--	294	32	116	39.5	.8	217.8
Behind Dick Palmer Gifts - Off Graham	31	--	217	42	156	71.9	1.4	222.6

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*Number of total hours in survey.

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